SQUAW CREEK WATERSHED PROJECT -- WILDLIFE PORTION 9506001

SHORT DESCRIPTION:
A portion of $ for this project will come from the anadromous program in FY98. In FY99 and beyond, funding will come from wildlife. Apply a watershed protection, restoration and management approach to the Squaw Creek sub-watershed to maximize long term benefits to wildlife and anadromous and resident fish habitat.

SPONSOR/CONTRACTOR: CTUIR
Confederated Tribes of the Umatilla Indian Reservation
Carl Scheeler, Wildlife Program Manager
Department of Natural Resources, Wildlife Program P. O. Box 638, Pendleton, OR 97801
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SUB-CONTRACTORS:
N/A

GOALS

GENERAL:
Supports a healthy Columbia basin, Maintains biological diversity, Maintains genetic integrity, Increases run sizes or populations, Provides needed habitat protection, Advances watershed approach to mitigation

WATERSHED:
Implementation

WILDLIFE:
Habitat

NPPC PROGRAM MEASURE:
7.6A;7.6C;7.8E;11.3C.2;11.3D

OTHER PLANNING DOCUMENTS:
Wy Kan Ush Me Wa Kush Wit- Chapter 2, Page 43,44, sections III, A, B, C, and D. Confederated Tribes of the Umatilla Indian Reservation Wildlife Mitigation Plan for the John Day and McNary Dams, Columbia River Basin. 1996. 65 pages. -Section 1.7.2.2 Watershed approach supported by: Upstream Salmon and Society in the Pacific Northwest, National Research Council. 1995

TARGET STOCK	LIFE STAGE	MGMT CODE (see below)
Resident Redband Rainbow/ other non-game native fish		N
Native Umatilla River Bull Trout		P, N
Umatilla River/ Tanner Creek Coho	Pre-smolt - smolt	S
Umatilla River/ Mid Columbia Bright Fall Chinook	Pre-smolt - smolt	S
Umatilla River/Carson Spring Chinook	Pre-smolt - smolt	S
Umatilla River Summer Steelhead	Egg-smolt, Adult Holding	S, W

BACKGROUND

Stream name:
Squaw Creek

LAND AREA INFORMATION

Subbasin:
Umatilla

Land ownership:
BIA Trust, USFW, BLM, Private, Corporate

Hydro project mitigated:

Acres affected:

McNary/John Day

16000-24200

Habitat types:

Riparian, Grassland, Conifer forest, Agricultural, Rock Outcroppings, Talus, aquatic

HISTORY:

The Project was prioritized for protection and enhancement under the Umatilla River Basin Anadromous Fish Habitat Enhancement Project, 87-100-01 with an emphasis on its natural production potential for anadromous and resident fish. In 1991 a cultural resources survey of fourteen spring sites was conducted as a precursor to spring development and protection efforts. Additionally, fish habitat surveys were conducted and baseline water quality data collected under this project.
Physical and biological surveys (Juvenile abundance/distribution, pre-spawning surveys and redd counts) were conducted under the Umatilla Basin Natural Production Research Project to document natural production success and related habitat conditions in the sub-watershed.
The CTUIR implemented a big game forage enhancement project in cooperation with private landowners, the Oregon Department of Fish and Wildlife, and the Rocky Mountain Elk Foundation in the Fall of 1995 to improve big game forage conditions in the Squaw Creek area. The project included aerial application of fertilizer and distribution of salt to improve elk distribution. In severe winters, the Umatilla Indian Reservation winters several thousand elk from surrounding big game units in the Blue Mountains which trigger depredation complaints from private landowners on reservation. The Squaw Creek fertilization and salting project is the first of several planned for implementation in the Blue Mountain foothills.
The CTUIR Wildlife Program is currently in the process of facilitating the development of multi-agency plan to improve and promote the condition and distribution of native plant communities and cover/forage conditions for big game and other wildlife. Additional management activities in adjacent drainages on National Forest system lands include salvage timber harvest, prescribed underburning, and implementation of access and travel management plans.
A wildlife mitigation project in the Squaw Creek corridor would be one component of a broader effort by the CTUIR, Forest Service, private landowners, and other organizations regarding development and implementation of projects to improve natural ecosystems in the Blue Mountains. The goal for this project area would be to promote stewardship and watershed restoration efforts through purchase of easements on range units administered by the Bureau of Indian Affairs, acquisition of fee title on available lands, and development of cooperative efforts between the Tribes, federal and state agencies, and private landowners.

BIOLOGICAL RESULTS ACHIEVED:

Successful reintroduction of Chinook and Coho salmon with documented natural production.

PROJECT REPORTS AND PAPERS:

Contractor submits annual project reports for each project listed above. Project identified in the Wildlife Mitigation Plan for the John Day and McNary Dams, CTUIR March 1996.

ADAPTIVE MANAGEMENT IMPLICATIONS:

Monitoring and evaluation of the species and habitat responses will be used to direct future management actions within the framework of a Management Plan/NEPA document prepared by the CTUIR and BPA to assure benefits from efforts expended. Squaw Creek sub-watershed currently shows the highest use for spawning of native summer steelhead. However rearing habitat to sustain this production and the documented rearing of Chinook and Coho salmon is lacking. Overall increased anadromous and resident fish productivity resulting from this project will enable managers to better achieve Umatilla Basin fisheries restoration objectives.

PURPOSE AND METHODS

SPECIFIC MEASUREABLE OBJECTIVES:

The Squaw Creek Planning Area includes approximately 10,000 acres located entirely within the Squaw Creek sub-watershed, a tributary of the Umatilla River. The area contains critical big game winter range with native bunchgrass plant communities, stringer timber stands, and high quality riparian habitat along Squaw Creek. The area provides habitat for Rocky Mountain elk, mule deer, white-tailed deer, black bear, cougar, raptors, beaver, primary and secondary excavators and various other forest ecosystem species including several species of threatened, endangered, and sensitive fish, wildlife, and plant species. Squaw Creek contains particularly important salmonid spawning and rearing habitat with a significant spawning population of Umatilla River Basin steelhead and suitable habitat for redband and bull trout. Primary HEP indicator species benefited include: mink

California quail, and downy woodpecker, Spotted sandpiper, Western meadowlark, Yellow warbler, Black-capped chickadee and Great blue heron. Project would permanently protect over eight miles and provide partial protection and enhancement of and additional 18 miles of anadromous and resident fish habitat and over eight thousand acres of terrestrial wildlife habitats.

CRITICAL UNCERTAINTIES:
Adequate funding for acquisitions and cooperative agreements, operation and maintenance, monitoring and evaluation and enhancements .Depends on the BPA's Programmatic EIS for Wildlife Mitigation in the Columbia Basin for programmatic (non-project specific) issues. Depends on successful negotiation for acquisition of the dominant private inholdings within the project area. Also see project history above. Land use on properties within the watershed that are not covered under acquisition, easement, leases or cooperative agreements may impact project lands.

BIOLOGICAL NEED:
Restore/mitigate for wildlife habitats impacted by the construction and subsequent reservoir inundation of the John Day and McNary Hydro Facilities as documented in the NPPC Wildlife Program's Losses Assessments and mandated by the Pacific Northwest Power Planning and Conservation Act of 1980. The current factor limiting anadromous and resident fish productivity in the Umatilla Basin is summer/fall rearing habitat. Due to the high level of anadromous spawning in Squaw Creek, restoration of this watershed represents an ideal opportunity to meet the biological rearing need (egg deposition to smolt). Project will benefit multiple species (Steelhead, Coho, Chinook, Bull Trout, resident rainbow, Whitefish, lamprey)

HYPOTHESIS TO BE TESTED:
Enhancement and protection of wildlife and fish habitats in a watershed context will optimize benefit to anadromous and resident fish and wildlife populations in a cost effective manner.

ALTERNATIVE APPROACHES:
N/A

METHODS:
Permanent protection of habitat resources in the watershed will be accomplished through the purchase of private lands, acquisition of grazing leases on Indian Trust lands, development of cooperative agreements with private and corporate land owners, coordination with adjacent Federal and State land managers, and through the commitment of Tribal trust lands to the purposes of the project in perpetuity. Enhancements will target construction of fencing to control livestock access and restoration of native plant communities to provide for a self sustaining restoration of the watershed. Physical factors which limit fish production capability will be addressed through enhancement of overall watershed conditions including upland, riparian and instream habitats. For additional information pertaining to planning and implementation of this wildlife/fish mitigation project, Please see: Confederated Tribes of the Umatilla Indian Reservation Wildlife Mitigation Plan for the John Day and McNary Dams - Draft for Public Comment, March 1996.

PLANNED ACTIVITIES

SCHEDULE:

Planning Phase **Start** Fall 1996 **End** Fall 1997 **Subcontractor** No

Task FY 1997 Secure option for acquisition on approximately 7000 acres of private lands within the basin. Purchase grazing permit for 1997-2001 for all trust lands within the basin not owned by the CTUIR. Incorporate management of 975 acres of Tribal trust lands in the basin into project. Develop cooperative management agreements, leases and easements for private lands in the basin. Conduct HEP analysis of project and complete site specific management plan.

Implementation Phase **Start** March 1997 **End** 2001 **Subcontractor** no

Task FY 1998-2001 Acquire 7000 acres optioned in 1997. Construct boundary fencing to control livestock access to the project area. Implement management plan including native plant community restoration, instream habitat protection measures, livestock access management etc.

PROJECT COMPLETION DATE:
2000 O&M perpetual

CONSTRAINTS OR FACTORS THAT MAY CAUSE SCHEDULE OR BUDGET CHANGES:
Depends on the BPA's Programmatic EIS for Wildlife Mitigation in the Columbia Basin for programmatic (non-project specific) issues. Depends on successful negotiation for acquisition of the dominant private inholdings within the project area. Also see project history above. Regional reprioritization of funding.

OUTCOMES, MONITORING AND EVALUATION

SUMMARY OF EXPECTED OUTCOMES

Expected performance of target population or quality change in land area affected:
Cost efficient and effective mitigation We expect long term restoration of wildlife and anadromous and resident fish habitats in an integrated watershed context as guided by the CTUIR Wildlife Mitigation Plan for John Day and McNary Dams and the Umatilla Fisheries Restoration Plan and CTUIR Salmon Policy. Target wildlife species should respond to improvements in habitat quality and quantity and salmon and steelhead and resident fish production should be increased within and downstream of the projects.

Present utilization and convservation potential of target population or area:
Watershed presently is managed for timber production, range land and wildlife big game winter range. Project area includes limited access. Full implementation of watershed approach will create a secure watershed of high value for water, fish and wildlife. The size and watershed approach help ensure a high potential for long term conservation of the target populations and resources. Anadromous populations are, as always, in jeopardy from out-of-basin impacts.

Assumed historic status of utilization and conservation potential:
Historically, the watershed has been in mixed ownership with no unifying management planning or vision with the exception of BIA's management of the grazing rights as a unit.

Long term expected utilization and conservation potential for target population or habitat:
The perpetual nature of the protection measures (acquisition and perpetual easements as a priority) and the watershed approach should assure a long term use and conservation potential for this project.

Contribution toward long-term goal:
Stable system wide benefits to aquatic and riparian dependent species and conservation of critical production areas.

Indirect biological or environmental changes:
Increased production of anadromous and resident fishes, wildlife and native plant communities in areas adjacent to and downstream from the project.

Physical products:
Protection and management control of up to 24,000 acres of watershed lands.

Environmental attributes affected by the project:
Water quality (turbidity and temperature), instream flow, decreased non-native plant species, increased public access opportunities, reduced commodity driven management activities in the watershed.

Changes assumed or expected for affected environmental attributes:
Water quality will increase over time with the recovery of the riparian and upland plant communities. Livestock will be displaced with potential to impact of project lands to a greater extent.

Measure of attribute changes:
Habitat units will be estimated using HEP to be conducted in 1997/8 and to be updated as per the M&E plan to be developed.

Information products:
Habitat Evaluation Procedure will be conducted and provide the basis for the M&E of the project for Wildlife, Water quality will be monitored as part of ongoing basin projects and along with natural production M&E and Instream habitat surveys, will make up the basis for annual reports.

Coordination outcomes:
Improved coordination of land use on the Umatilla Indian Reservation and adjacent properties.

MONITORING APPROACH
Umatilla River Basin Monitoring and Evaluation Program, HEP

Provisions to monitor population status or habitat quality:
Umatilla River Basin Monitoring and Evaluation Program, HEP

Data analysis and evaluation:
See Statement of work for Umatilla River Basin Monitoring and Evaluation Program and HEP Procedures.

Information feed back to management decisions:
Data may effect enhancement and access management plan activities to assure optimization of target resources.

EVALUATION
Water quality and quantity. Plant community succession and stability against invading non-native species, quality and quantity of fish habitat available within the project area, HEP model outputs, wildlife population response.

Incorporating new information regarding uncertainties:
Through coordination of project activities with cooperating agencies and reporting to funding agency.

Increasing public awareness of F&W activities:
Public awareness will be increased through access to project area an benefits for education and research and sharing of project results with local watershed council and agencies.

RELATIONSHIPS

RELATED BPA PROJECT	RELATIONSHIP
8403300 8343500 9101400 8802200 Other related projects comprising a comprehensive Umatilla Basin fisheries restoration program. Umatilla Hatchery O&M Umatilla Hatchery Satellite Facilities O&M Umatilla Hatchery Satellites-design and Construction	Support stock supplementation and passage in the Umatilla Basin
9000501 Umatilla Basin Monitoring and Evaluation Program	Evaluated natural production success of reintroduced anadromous and resident fish in the Umatilla Basin including Squaw Creek.
8710001 Umatilla River Basin Anadromous Fish Habitat Enhancement Project	Basin wide anadromous fish habitat protection and restoration effort guided by the Umatilla River Drainage anadromous Fish Habitat Improvement Implementation Plan (Reeve, et. al. 1988). Prioritized Squaw Creek for protection and enhancement and focused monitoring and evaluation efforts within this proposed project area. 64B

9506000 Umatilla River Riparian Corridor Coordination	Basin wide mitigation planning and coordination contract for CTUIR wildlife mitigation effort. Identified, integrated and prioritized mitigation projects in the CTUIR ceded territory. Integrated mitigation efforts in Oregon with CTUIR's mitigation effort under the Interim Washington Wildlife Mitigation Agreement.

OPPORTUNITIES FOR COOPERATION:
This project represents a unique opportunity to combine objectives and funding sources of wildlife, resident fish and anadromous fish to accomplish a common restoration objective in a watershed context. Ongoing management of fish and wildlife resources on the UIR will support this effort. Existing CTUIR fish and wildlife mitigation efforts in the Umatilla Basin may provide opportunity to share equipment and staff.

COSTS AND FTE

1997 Planned: $600,000

FUTURE FUNDING NEEDS: **PAST OBLIGATIONS (incl. 1997 if done):**

FY	$ NEED	% PLAN	% IMPLEMENT	% O AND M
1998	$200,000			
1999	$200,000			
2000	$200,000			
2001	$200,000			
2002	$200,000			

OTHER NON-FINANCIAL SUPPORTERS:
CTUIR provided significant additional lands to the effort without cost

LONGER TERM COSTS:
Some level of outyear O&M and M&E costs will be required to support this project. It is too early to estimate with any certainty

1997 OVERHEAD PERCENT: 34%

HOW DOES PERCENTAGE APPLY TO DIRECT COSTS:
Does not include subcontracts

SUBCONTRACTOR FTE: None planned at this time. May be some with enhancement projects.